

Amendments to the Claims

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method of analyzing a sample, comprising:
 - maintaining an internal pressure of a sample chamber at a predetermined level through a control valve,
 - injecting the sample into the sample chamber,
 - detecting an increment in the internal pressure upon injecting the sample into the sample chamber,
 - comparing the increment with a predetermined threshold,
 - holding the control valve at an opening degree before the sample is injected into the sample chamber for a predetermined period of time when the increment exceeds the predetermined threshold so that a substantial amount of the sample injected to the sample chamber can be sent to a detector without leaking being lost through the control valve, and
 - maintaining the internal pressure at the predetermined level again after the predetermined period of time.

2-3. (canceled)

4. (currently amended) A method of analyzing a sample according to claim 3 1, wherein said control valve is maintained at the predetermined level by a closed loop control through detections of the control valve and the internal pressure of the sample chamber.
5. (original) A method of analyzing a sample according to claim 4, wherein when said increment exceeds the predetermined threshold, a timer is started to shut off the closed loop control for said predetermined period of time.

6. (currently amended) A method of analyzing a sample according to claim 3 1, wherein when the increment in the sample chamber is detected, pressure increase in the sample chamber is expected

estimated with reference to a speed rate thereof to thereby quickly actuate the control valve.

7. (original) A method of analyzing a sample according to claim 1, wherein said sample is automatically injected with an auto-sampler, and the internal pressure in the sample chamber is directly compared with the predetermined threshold to control the control valve.

8. (cancelled)

9. (new) A method of analyzing a sample according to claim 1, wherein said predetermined threshold is above the predetermined level in the sample chamber.